



# PROXMOX MAIL GATEWAY ADMINISTRATION GUIDE

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Proxmox Server Solutions GmbH  
[www.proxmox.com](http://www.proxmox.com)

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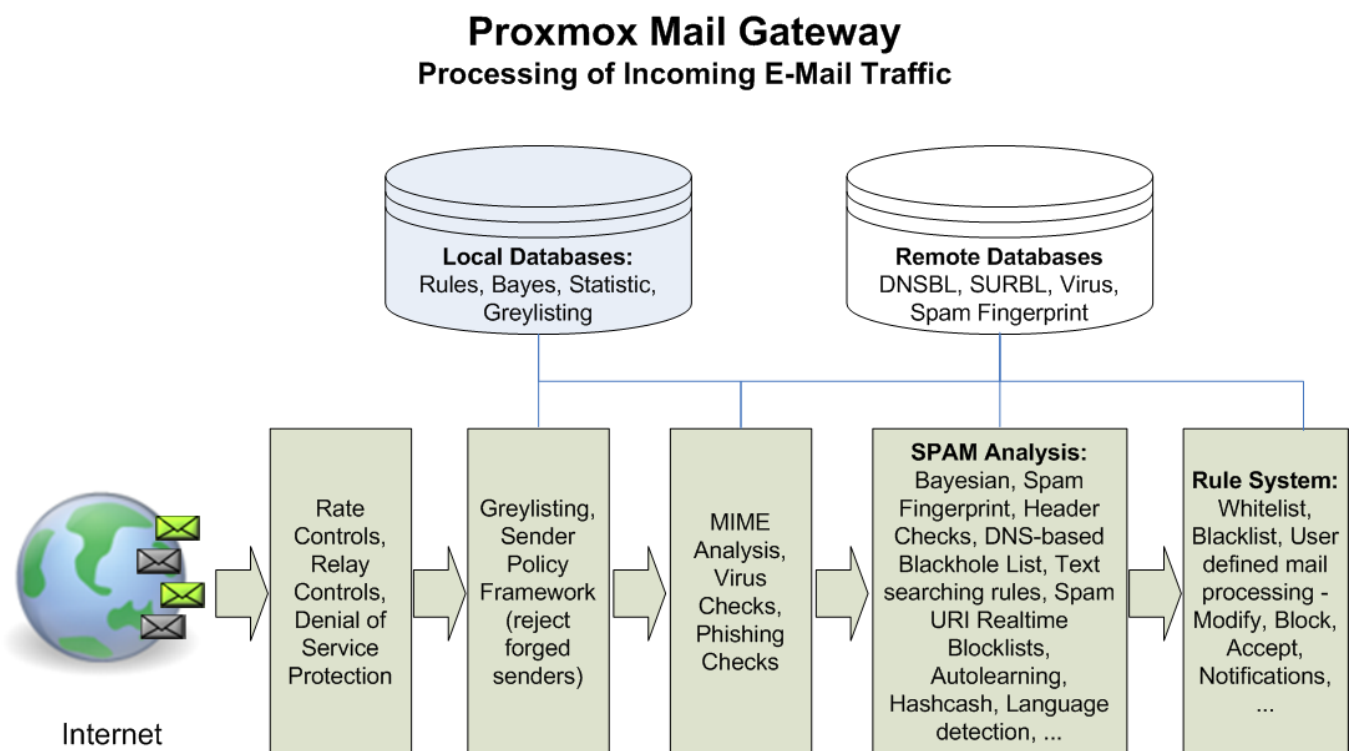
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# Chapter 1

## Introduction

### 1.1 What is Proxmox Mail Gateway?

E-mail security begins at the gateway by controlling all incoming and outgoing e-mail messages. Proxmox Mail Gateway addresses the full spectrum of unwanted e-mail traffic, focusing spam and virus detection. Proxmox Mail Gateway provides a powerful and affordable server solution to eliminate spam, viruses and blocking undesirable content from your e-mail system. All products are self-installing and can be used without deep knowledge of Linux.



### 1.2 Your benefit with Proxmox Mail Gateway

- Open source software
- No vendor lock-in

- Linux kernel
- Fast installation and easy-to-use
- Web-based management interface
- REST API
- Huge active community
- Low administration costs and simple deployment

## 1.3 Getting Help

### 1.3.1 Community Support Forum

Proxmox Mail Gateway itself is fully open source, so we always encourage our users to discuss and share their knowledge using the [Proxmox VE Community Forum](#). The forum is fully moderated by the Proxmox support team, and has a quite large user base around the whole world. Needless to say that such a large forum is a great place to get information.

### 1.3.2 Commercial Support

Proxmox Server Solutions GmbH also offers commercial [Proxmox Mail Gateway Subscription Service Plans](#). System Administrators with a standard subscription plan can access a dedicated support portal with guaranteed response time, where Proxmox Mail Gateway developers help them should an issue appear. Please contact the [Proxmox sales team](#) for more information or volume discounts.

### 1.3.3 Bug Tracker

We also run a public bug tracker at <https://bugzilla.proxmox.com>. If you ever detect a bug, you can file an bug entry there. This makes it easy to track the bug status, and you will get notified as soon as the bug is fixed.

## Chapter 2

# Quick Start Guide

Experienced users can use this guide for a quick installation. For detailed instructions please read the whole documentation.

1. Download ISO from Download <http://www.proxmox.com>

---

**Note**

There is one ISO image for download covering all versions and features.

---

2. Burn the downloaded ISO image to a CD or create a [bootable USB stick](#) Chapter 5.
3. Boot from this CD/USB stick on your dedicated hardware - see [System requirements](#) Section 3.4.
4. Follow the instructions on the graphical screen.

**Caution**

All existing data on your hard disk will be lost!

---

5. After reboot, go to your desktop PC and point your browser to the given IP address.
6. Login and upload subscription key.
7. Check the IP configuration and hostname.
8. Check and save the Time Zone.
9. Check your [Firewall settings](#) Section 3.3.
10. Configure Proxmox Mail Gateway to forward the incoming SMTP traffic to your Mail server (*Configuration/Mail Proxy/Default Relay*) - *Default Relay* is your e-mail server.
11. Configure your e-mail server to send all outgoing messages through your Proxmox Mail Gateway (*Smart Host*, port 26 by default) - see [Filtering outgoing e-mails](#) Chapter 5.

For detailed deployment scenarios see the "Proxmox Mail Gateway Deployment Guide".

If the installation succeeds you have to route all your incoming and outgoing e-mail traffic to the Mail Gateway. For incoming traffic you have to configure your firewall and/or DNS settings. For outgoing traffic you need to change the existing e-mail server configuration.

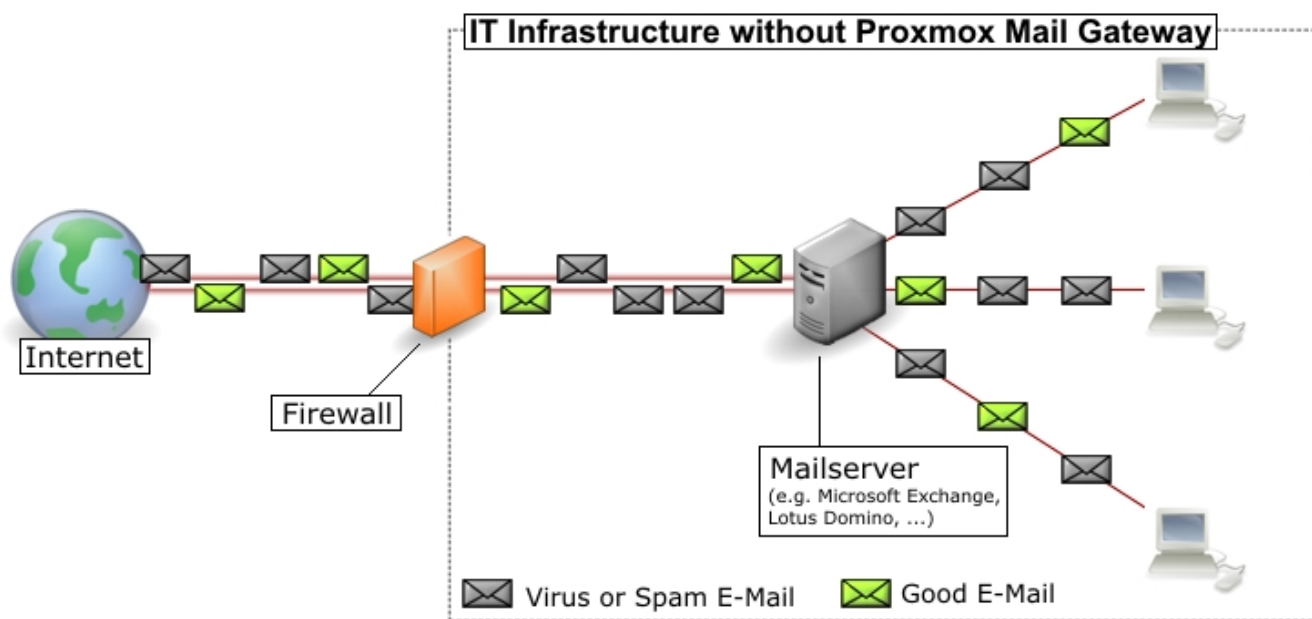
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## Chapter 3

# Planning for Deployment

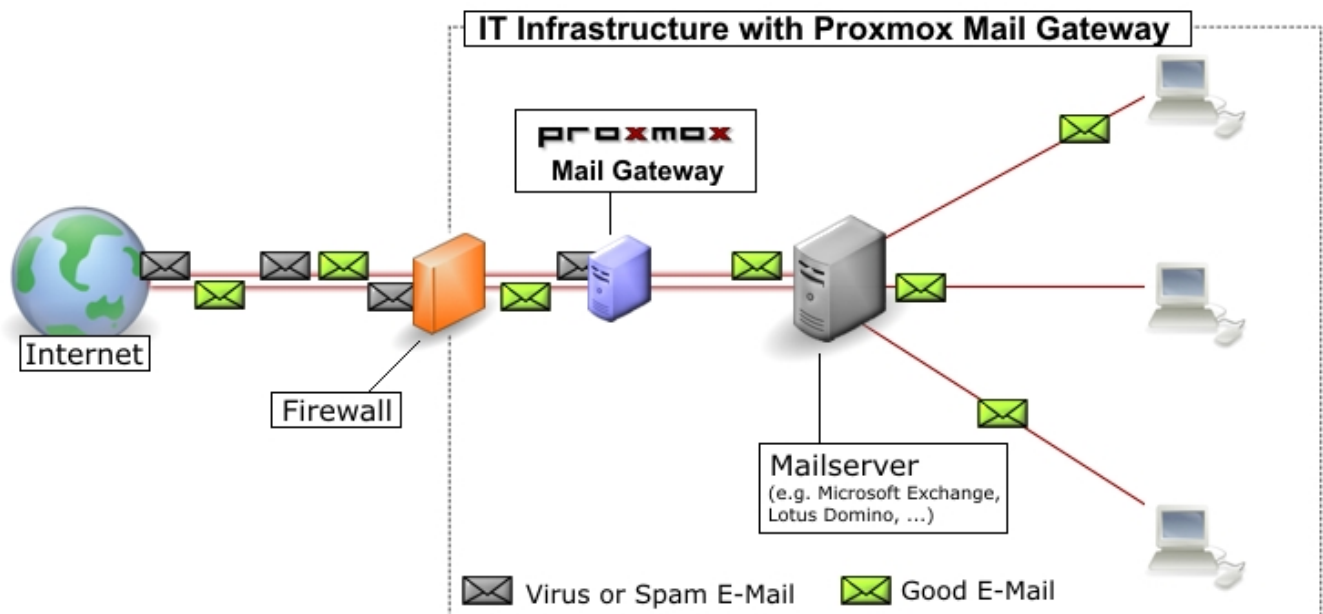
### 3.1 Easy integration into existing e-mail server architecture

In this sample configuration, your e-mail traffic (SMTP) arrives on the firewall and will be directly forwarded to your e-mail server.



By using the Proxmox Mail Gateway, all your e-mail traffic is forwarded to the Proxmox Mail Gateway, which filters the whole e-mail traffic and removes unwanted e-mails. You can manage incoming and outgoing mail traffic.





## 3.2 Filtering outgoing e-mails

Many e-mail filter solutions do not scan outgoing mails. Opposed to that Proxmox Mail Gateway is designed to scan both incoming and outgoing e-mails. This has two major advantages:

1. Proxmox Mail Gateway is able to detect viruses sent from an internal host. In many countries you are liable for not sending viruses to other people. Proxmox Mail Gateway outgoing e-mail scanning feature is an additional protection to avoid that.
2. Proxmox Mail Gateway can gather statistics about outgoing e-mails too. Statistics about incoming e-mails looks nice, but they are quite useless. Consider two users, user-1 receives 10 e-mails from news portals and wrote 1 e-mail to a person you never heard from. While user-2 receives 5 e-mails from a customer and sent 5 e-mails back. Which user do you consider more active? I am sure its user-2, because he communicates with your customers. Proxmox Mail Gateway advanced address statistics can show you this important information. Solution which does not scan outgoing e-mail cannot do that.

To enable outgoing e-mail filtering you just need to send all outgoing "smarthost" on your e-mail server - see [Example mail server configuration](#) Chapter 5.

## 3.3 Firewall settings

In order to pass e-mail traffic to the Proxmox Mail Gateway you need to allow traffic on the SMTP the port. Our servers use the Network Time Protocol (NTP) for time synchronization, RAZOR, DNS, SSH, HTTP and port 8006 for the web based management interface.

Service	Port	Protocol	From	To
SMTP	25	TCP	Proxmox	Internet
SMTP	25	TCP	Internet	Proxmox

Service	Port	Protocol	From	To
SMTP	26	TCP	Mailserver	Proxmox
NTP	123	TCP/UDP	Proxmox	Internet
RAZOR	2703	TCP	Proxmox	Internet
DNS	53	TCP/UDP	Proxmox	DNS Server
HTTP	80	TCP	Proxmox	Internet
GUI/API	8006	TCP	Intranet	Proxmox

**Caution**

It is advisable to restrict access to the GUI/API port as far as possible.

---

The outgoing HTTP connection is mainly used by virus pattern updates, and can be configured to use a proxy instead of a direct internet connection.

You can use the *nmap* utility to test your firewall settings (see section [port scans](#) Chapter 5).

## 3.4 System Requirements

Proxmox Mail Gateway needs dedicated server hardware but can also run inside a virtual machine on any of the following platforms:

- Proxmox VE (KVM)
- VMWare vSphere™ (open-vm tools are integrated in the ISO)
- Hyper-V™ (Hyper-V Linux integration tools are integrated in the ISO)
- KVM (virtio drivers are integrated, great performance)
- Virtual box™
- Citrix XenServer™

Please see <http://www.proxmox.com> for details.

In order to get a benchmark from your hardware, just run *pmgperf* after installation.

### 3.4.1 Minimum System Requirements

- CPU: 64bit (Intel EMT64 or AMD64)
  - 1 GB RAM
  - bootable CD-ROM-drive or USB boot support
  - 1024x768 capable VGA/Monitor for Installer
  - Hard disk 8 GB - ATA/SATA/SCSI/NVME
  - Ethernet Network interface card
-

### 3.4.2 Recommended System Requirements

- Multicore CPU: 64bit (Intel EMT64 or AMD64)
  - 4 GB RAM
  - bootable CD-ROM-drive or USB boot support
  - 1024x768 capable VGA/Monitor for Installer
  - 1 GBps Ethernet Network interface card
  - Hardware RAID1 or RAID10, Raid Controllers need write cache with batteries backup module for best performance
  - Enterprise class SSD with power loss protection (e.g. Intel SSD DC 35xx/36xx/37xx)
-

## Chapter 4

# Configuration Management Toolkit

Toolkit to simplify common configuration tasks.

## Chapter 5

### TODO

nmap

create\_bootable\_usb

mail\_server\_config

filtering\_outgoing\_mail

## Chapter 6

# Important Service Daemons

### 6.1 pmgdaemon - Proxmox Mail Gateway API Daemon

This daemon exposes the whole Proxmox Mail Gateway API on `127.0.0.1:85`. It runs as `root` and has permission to do all privileged operations.

---

**Note**

The daemon listens to a local address only, so you cannot access it from outside. The `pmgproxy` daemon exposes the API to the outside world.

---

### 6.2 pmgproxy - Proxmox Mail Gateway API Proxy Daemon

This daemon exposes the whole Proxmox Mail Gateway API on TCP port 8006 using HTTPS. It runs as user `www-data` and has very limited permissions. Operation requiring more permissions are forwarded to the local `pmgdaemon`.

Requests targeted for other nodes are automatically forwarded to those nodes. This means that you can manage your whole cluster by connecting to a single Proxmox Mail Gateway node.

#### 6.2.1 Alternative HTTPS certificate

By default, `pmgproxy` uses the certificate `/etc/pmg/pmg-api.pem` for HTTPS connections. This certificate is a self signed certificate, and therefore not trusted by browsers and operating systems by default. You can simply replace this certificate with your own (please include the key inside the `.pem` file).

### 6.3 pmg-smtp-filter - Proxmox SMTP Filter Daemon

This is the Proxmox SMTP filter daemon, which does the actual SPAM filtering using the SpamAssassin and the rule database. It listens on `127.0.0.1:10023` and `127.0.0.1:10024`. The daemon listens to a local address only, so you cannot access it from outside.

With our postfix configuration, incoming mails are sent to `127.0.0.1:10024`. Outgoing (trusted) mails are sent to `127.0.0.1:10023`. After filtering, mails are reinjected into postfix at `127.0.0.1:10025`.

---

## 6.4 pmgpolicy - Proxmox Mail Gateway Policy Daemon

This daemon implements the Postfix SMTP access policy delegation protocol on `127.0.0.1:10022`. The daemon listens to a local address only, so you cannot access it from outside. We configure Postfix to use this service for greylisting and as SPF policy server.

## 6.5 pmgtunnel - Cluster Tunnel Daemon

This daemon creates a ssh tunnel to the postgres database in other cluster nodes (port 5432). The tunnel is used to synchronize the database using an application specific asynchronous replication algorithm.

## 6.6 pmgmirror - Database Mirror Daemon

Proxmox Mail Gateway use an application specific asynchronous replication algorithm to replicate the database to all cluster nodes.

The daemon uses the ssh tunnel provided by *pmgtunnel* to access the database on remote nodes.

---

## Chapter 7

# Useful Command Line Tools

### 7.1 Database Management Toolkit

Toolkit to simplify common database management tasks.

### 7.2 API Shell

Toolkit to access the Proxmox Mail Gateway API via the command line.

#### 7.2.1 Examples

List entries:

```
# pmgsh ls /
```

Call method *GET* on an specific API path:

```
# pmgsh get /version
```

View current mail configuration:

```
# pmgsh get /config/mail
```

Get help for a specific path:

```
# pmgsh help /config/mail -v
```

Disable option *spf* in */config/mail*

```
# pmgsh set /config/mail -spf 0
```

Delete *spf* setting from */config/mail*

```
# pmgsh set /config/mail -delete spf
```

---



## 7.3 Proxmox Mail Gateway Version Info

Print version information for Proxmox Mail Gateway packages.

### 7.3.1 Examples

Print Proxmox Mail Gateway version:

```
# pmgversion
```

List version details for important packages:

```
# pmgversion -v
```

Please use the Debian package management for details about other packages

```
# dpkg -l
```

## 7.4 pmgsubscription - Subscription Management

This tool is used to handle Proxmox Mail Gateway subscriptions.

## 7.5 Proxmox Simple Performance Benchmark

This tool tries to gather some CPU/Harddisk performance data on the harddisk (mounted at *path*).

- CPU BOGOMIPS: bogomips sum of all CPUs
- REGEX/SECOND: regular expressions per second (perl performance test), should be above 300000
- HD SIZE: harddisk size
- BUFFERED READS: simple HD read test. Modern HDs should reach at least 40 MB/sec
- AVERAGE SEEK TIME: tests average seek time. Fast SCSI HDs reach values < 8 milliseconds. Common IDE/SATA disks get values from 15 to 20 ms. SSD seek times should be below 1ms.
- FSYNCS/SECOND: value should be greater than 200 (you should enable *write back* cache mode on you RAID controller - needs a battery backed cache (BBWC)).
- DNS EXT: average time to resolve an external DNS name
- DNS INT: average time to resolve a local DNS name

## 7.6 Quarantine Management Toolkit

Toolkit to manage spam an virus quarantine, and send spam report mails.

---

## 7.7 Send daily system report email

This binary generates and send daily system report email.

## 7.8 Upgrade Proxmox Mail Gateway

This is a small wrapper around `apt-get dist-upgrade`. We use this to print additional information (kernel restart required?), and optionally run an interactive shell after the update. This binary is invoked when starting an upgrade using the web GUI.

If you are already logged in on the console, it is preferable to invoke `apt-get` directly.

```
# apt-get dist-upgrade
```

# Appendix A

## Command Line Interface

### A.1 pmgsh - API Shell

Interactive session:

**pmgsh**

Directly call API functions:

**pmgsh** (get|set|create|help) <path> [OPTIONS]

### A.2 pmgperf - Proxmox Simple Performance Benchmark

**pmgperf** help

**pmgperf** [<path>]

Proxmox benchmark.

**<path>:** <string> (*default = /*)  
File system location to test.

### A.3 pmgconfig - Configuration Management Toolkit

**pmgconfig** <COMMAND> [ARGS] [OPTIONS]

**pmgconfig** apicert [OPTIONS]

Generate /etc/pmg/pmg-api.pem (self signed certificate for GUI and REST API).

**--force** <boolean> (*default = 0*)  
Overwrite existing certificate.

**pmgconfig** dump

Print configuration setting which can be used in templates.

**pmgconfig** help [<cmd>] [OPTIONS]

Get help about specified command.

---

**<cmd>: <string>**

Command name

**--verbose <boolean>**

Verbose output format.

### **pmgconfig init**

Generate required files in /etc/pmg/

### **pmgconfig ldapsync**

Synchronize the LDAP database.

### **pmgconfig sync** [OPTIONS]

Synchronize Proxmox Mail Gateway configurations with system configuration.

**--restart <boolean> (default = 0)**

Restart services if necessary.

### **pmgconfig tlscert** [OPTIONS]

Generate /etc/pmg/pmg-tls.pem (self signed certificate for encrypted SMTP traffic).

**--force <boolean> (default = 0)**

Overwrite existing certificate.

## **A.4 pmgdb - Database Management Toolkit**

**pmgdb** <COMMAND> [ARGS] [OPTIONS]

### **pmgdb delete**

Delete PMG rule database.

### **pmgdb dump**

Print the PMG rule database.

**pmgdb help** [<cmd>] [OPTIONS]

Get help about specified command.

**<cmd>: <string>**

Command name

**--verbose <boolean>**

Verbose output format.

### **pmgdb init** [OPTIONS]

Initialize/Upgrade the PMG rule database.

---

**--force <boolean> (default = 0)**

Delete existing database.

**--statistics <boolean> (default = 0)**

Reset and update statistic database.

### **pmgdb reset**

Reset PMG rule database back to factory defaults.

### **pmgdb update**

Update the PMG statistic database.

# Appendix B

## Service Daemons

### B.1 pmgdaemon - Proxmox Mail Gateway API Daemon

**pmgdaemon** <COMMAND> [ARGS] [OPTIONS]

**pmgdaemon help** [<cmd>] [OPTIONS]

Get help about specified command.

<cmd>: <string>

Command name

**--verbose** <boolean>

Verbose output format.

**pmgdaemon restart**

Restart the daemon (or start if not running).

**pmgdaemon start** [OPTIONS]

Start the daemon.

**--debug** <boolean> (*default = 0*)

Debug mode - stay in foreground

**pmgdaemon status**

Get daemon status.

**pmgdaemon stop**

Stop the daemon.

### B.2 pmgproxy - Proxmox Mail Gateway API Proxy Daemon

**pmgproxy** <COMMAND> [ARGS] [OPTIONS]

**pmgproxy help** [<cmd>] [OPTIONS]

Get help about specified command.

---

**<cmd>: <string>**

Command name

**--verbose <boolean>**

Verbose output format.

### **pmgproxy restart**

Restart the daemon (or start if not running).

**pmgproxy start** [OPTIONS]

Start the daemon.

**--debug <boolean> (default = 0)**

Debug mode - stay in foreground

### **pmgproxy status**

Get daemon status.

### **pmgproxy stop**

Stop the daemon.

## **B.3 pmg-smtp-filter - Proxmox SMTP Filter Daemon**

Please use systemd tools to manage this service.

**systemctl** (start|stop|restart|reload|status) pmg-smtp-filter

## **B.4 pmgpolicy - Proxmox Mail Gateway Policy Daemon**

Please use systemd tools to manage this service.

**systemctl** (start|stop|restart|reload|status) pmgpolicy

## **B.5 pmgtunnel - Cluster Tunnel Daemon**

**pmgtunnel** <COMMAND> [ARGS] [OPTIONS]

**pmgtunnel help** [<cmd>] [OPTIONS]

Get help about specified command.

**<cmd>: <string>**

Command name

**--verbose <boolean>**

Verbose output format.

---

**pmgtunnel restart**

Restart the Cluster Tunnel Daemon

**pmgtunnel start** [OPTIONS]

Start the Cluster Tunnel Daemon

**--debug <boolean> (default = 0)**

Debug mode - stay in foreground

**pmgtunnel status**

Print cluster tunnel status.

**pmgtunnel stop**

Stop the Cluster Tunnel Daemon

## B.6 pmgmirror - Database Mirror Daemon

**pmgmirror** <COMMAND> [ARGS] [OPTIONS]

**pmgmirror help** [<cmd>] [OPTIONS]

Get help about specified command.

**<cmd>: <string>**

Command name

**--verbose <boolean>**

Verbose output format.

**pmgmirror restart**

Restart the Database Mirror Daemon

**pmgmirror start** [OPTIONS]

Start the Database Mirror Daemon

**--debug <boolean> (default = 0)**

Debug mode - stay in foreground

**pmgmirror stop**

Stop the Database Mirror Daemon

---



## Appendix C

### Available Macros for the Rule System

It is possible to use macros inside most fields of action objects. That way it is possible to access and include data contained in the original mail, get envelope sender and receivers addresses or include additional information about Viruses and Spam. Currently the following macros are defined:

Macro	Comment
__SENDER__	(envelope) sender mail address
__RECEIVERS__	(envelope) receiver mail address list
__ADMIN__	Email address of the administrator
__TARGETS__	Subset of receivers matched by the rule
__SUBJECT__	Subject of the message
__MSGID__	The message ID
__RULE__	Name of the matching rule
__RULE_INFO__	Additional information about the matching rule

Macro	Comment
__VIRUS_INFO__	Additional information about detected viruses
__SPAMLEVEL__	Computed spam level
__SPAM_INFO__	Additional information why message is spam
__SENDER_IP__	IP address of sending host
__VERSION__	The current software version (proxmox mail gateway)
__FILENAME__	Attachment file name
__SPAMSTARS__	A series of "*" charactes where each one represents a full score ( <i>SPAMLEVEL</i> ) point

# Appendix D

## Configuration Files

### D.1 Proxmox Mail Gateway Main Configuration

The file `/etc/pmg/pmg.conf` is the main configuration.

#### D.1.1 File Format

The file is divided into several section. Each section has the following format:

```
section: NAME
        OPTION value
        ...
```

Blank lines in the file separates sections, and lines starting with a `#` character are treated as comments and are also ignored.

#### D.1.2 Options

SECTION *admin*

**advfilter:** `<boolean>` (*default = 1*)

Use advanced filters for statistic.

**dailyreport:** `<boolean>` (*default = 1*)

Send daily reports.

**delete:** `<string>`

A list of settings you want to delete.

**demo:** `<boolean>` (*default = 0*)

Demo mode - do not start SMTP filter.

---

**digest: <string>**

Prevent changes if current configuration file has different SHA1 digest. This can be used to prevent concurrent modifications.

**email: <string> (default = admin@domain.tld)**

Administrator E-Mail address.

**http\_proxy: http://.\***

Specify external http proxy which is used for downloads (example: *http://username:password@host:port/*)

**statlifetime: <integer> (1 - N) (default = 7)**

User Statistics Lifetime (days)

SECTION *clamav***archiveblockencrypted: <boolean> (default = 0)**

Whether to block encrypted archives. Mark encrypted archives as viruses.

**archivemaxfiles: <integer> (0 - N) (default = 1000)**

Number of files to be scanned within an archive, a document, or any other kind of container. Warning: disabling this limit or setting it too high may result in severe damage to the system.

**archivemaxrec: <integer> (1 - N) (default = 5)**

Nested archives are scanned recursively, e.g. if a ZIP archive contains a TAR file, all files within it will also be scanned. This options specifies how deeply the process should be continued. Warning: setting this limit too high may result in severe damage to the system.

**archivemaxsize: <integer> (1000000 - N) (default = 25000000)**

Files larger than this limit won't be scanned.

**dbmirror: <string> (default = database.clamav.net)**

ClamAV database mirror server.

**delete: <string>**

A list of settings you want to delete.

**digest: <string>**

Prevent changes if current configuration file has different SHA1 digest. This can be used to prevent concurrent modifications.

**maxcccount: <integer> (0 - N) (default = 0)**

This option sets the lowest number of Credit Card or Social Security numbers found in a file to generate a detect.

**maxscansize: <integer> (1000000 - N) (default = 100000000)**

Sets the maximum amount of data to be scanned for each input file.

---

**safebrowsing:** <boolean> (*default = 1*)

Enables support for Google Safe Browsing.

## SECTION *mail*

**banner:** <string> (*default = ESMTP Proxmox*)

ESMTP banner.

**conn\_count\_limit:** <integer> (0 - N) (*default = 50*)

How many simultaneous connections any client is allowed to make to this service. To disable this feature, specify a limit of 0.

**conn\_rate\_limit:** <integer> (0 - N) (*default = 0*)

The maximal number of connection attempts any client is allowed to make to this service per minute. To disable this feature, specify a limit of 0.

**delete:** <string>

A list of settings you want to delete.

**digest:** <string>

Prevent changes if current configuration file has different SHA1 digest. This can be used to prevent concurrent modifications.

**dnsbl\_sites:** <string>

Optional list of DNS white/blacklist domains (see `postscreen_dnsbl_sites` parameter).

**dwarning:** <integer> (0 - N) (*default = 4*)

SMTP delay warning time (in hours).

**ext\_port:** <integer> (1 - 65535) (*default = 26*)

SMTP port number for incoming mail (untrusted). This must be a different number than *int\_port*.

**greylist:** <boolean> (*default = 1*)

Use Greylisting.

**helotests:** <boolean> (*default = 0*)

Use SMTP HELO tests.

**hide\_received:** <boolean> (*default = 0*)

Hide received header in outgoing mails.

**int\_port:** <integer> (1 - 65535) (*default = 25*)

SMTP port number for outgoing mail (trusted).

**max\_filters:** <integer> (3 - 40) (*default = 15*)

Maximum number of `pmg-smtp-filter` processes.

---

**max\_policy: <integer> (2 - 10) (default = 5)**

Maximum number of pmgpolicy processes.

**max\_smtpd\_in: <integer> (3 - 100) (default = 99)**

Maximum number of SMTP daemon processes (in).

**max\_smtpd\_out: <integer> (3 - 100) (default = 99)**

Maximum number of SMTP daemon processes (out).

**maxsize: <integer> (1024 - N) (default = 10485760)**

Maximum email size. Larger mails are rejected.

**message\_rate\_limit: <integer> (0 - N) (default = 0)**

The maximal number of message delivery requests that any client is allowed to make to this service per minute. To disable this feature, specify a limit of 0.

**rejectunknown: <boolean> (default = 0)**

Reject unknown clients.

**rejectunknownsender: <boolean> (default = 0)**

Reject unknown senders.

**relay: <string>**

The default mail delivery transport (incoming mails).

**relaynomx: <boolean> (default = 0)**

Disable MX lookups for default relay.

**relayport: <integer> (1 - 65535) (default = 25)**

SMTP port number for relay host.

**smarthost: <string>**

When set, all outgoing mails are delivered to the specified smarthost.

**spf: <boolean> (default = 1)**

Use Sender Policy Framework.

**tls: <boolean> (default = 0)**

Enable TLS.

**tlsheader: <boolean> (default = 0)**

Add TLS received header.

**tlslog: <boolean> (default = 0)**

Enable TLS Logging.

---

**use\_rbl:** <boolean> (*default = 1*)

Use Realtime Blacklists.

**verifyreceivers:** <450 | 550>

Enable receiver verification. The value specifies the numerical reply code when the Postfix SMTP server rejects a recipient address.

## SECTION *spam*

**bounce\_score:** <integer> (0 - 1000) (*default = 0*)

Additional score for bounce mails.

**delete:** <string>

A list of settings you want to delete.

**digest:** <string>

Prevent changes if current configuration file has different SHA1 digest. This can be used to prevent concurrent modifications.

**languages:** (all | ([a-z][a-z])+( ([a-z][a-z])+)\*) (*default = all*)

This option is used to specify which languages are considered OK for incoming mail.

**maxspamsize:** <integer> (64 - N) (*default = 204800*)

Maximum size of spam messages in bytes.

**rbl\_checks:** <boolean> (*default = 1*)

Enable real time blacklists (RBL) checks.

**use\_awl:** <boolean> (*default = 1*)

Use the Auto-Whitelist plugin.

**use\_bayes:** <boolean> (*default = 1*)

Whether to use the naive-Bayesian-style classifier.

**use\_razor:** <boolean> (*default = 1*)

Whether to use Razor2, if it is available.

**wl\_bounce\_relays:** <string>

Whitelist legitimate bounce relays.

## SECTION *spamquar*

**allowhrefs:** <boolean> (*default = 1*)

Allow to view hyperlinks.

---

**authmode: <ldap | ldapticket | ticket> (default = ticket)**

Authentication mode to access the quarantine interface. Mode *ticket* allows login using tickets sent with the daily spam report. Mode *ldap* requires to login using an LDAP account. Finally, mode *ldapticket* allows both ways.

**delete: <string>**

A list of settings you want to delete.

**digest: <string>**

Prevent changes if current configuration file has different SHA1 digest. This can be used to prevent concurrent modifications.

**hostname: <string>**

Quarantine Host. Usefull if you run a Cluster and want users to connect to a specific host.

**lifetime: <integer> (1 - N) (default = 7)**

Quarantine life time (days)

**mailfrom: <string>**

Text for *From* header in daily spam report mails.

**reportstyle: <custom | none | short | verbose> (default = verbose)**

Spam report style.

**viewimages: <boolean> (default = 1)**

Allow to view images.

## SECTION *virusquar*

**allowhrefs: <boolean> (default = 1)**

Allow to view hyperlinks.

**delete: <string>**

A list of settings you want to delete.

**digest: <string>**

Prevent changes if current configuration file has different SHA1 digest. This can be used to prevent concurrent modifications.

**lifetime: <integer> (1 - N) (default = 7)**

Quarantine life time (days)

**viewimages: <boolean> (default = 1)**

Allow to view images.

---



## D.2 Cluster Configuration

The file `/etc/pmg/cluster.conf` contains the cluster configuration.

### D.2.1 File Format

The file is divided into several section. There is one *master* and several *node* sections.

```
master: <cid>
        OPTION value
        ...

node: <cid>
        OPTION value
        ...
```

Blank lines in the file separates sections, and lines starting with a `#` character are treated as comments and are also ignored.

### D.2.2 Options

**cid: <integer> (1 - N)**  
Cluster Node ID.

**fingerprint: ^(:?[A-Z0-9][A-Z0-9:]){31}[A-Z0-9][A-Z0-9]\$**  
SSL certificate fingerprint.

**hostrsapubkey: ^[A-Za-z0-9\.\./\+]{200,}\$**  
Public SSH RSA key for the host.

**ip: <string>**  
IP address.

**maxcid: <integer> (1 - N)**  
Maximum used cluster node ID (used internally, do not modify).

**name: <string>**  
Node name.

**rootrsapubkey: ^[A-Za-z0-9\.\./\+]{200,}\$**  
Public SSH RSA key for the root user.

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# Appendix E

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Version 1.3, 3 November 2008

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